

The Effect of Permitless Carry Laws on Gun Deaths and Crime

Jinlin Li, USC^{*}

Jeff DeSimone, Duke University[†]

NBER Conference on the Economics of Firearm Markets, Crime, and Gun Violence
October 10, 2025

^{*} 2nd year PhD student, Department of Economics

[†] Professor of the Practice & Director of the Duke Economic Analytics Lab, Department of Economics

Data are an annual state panel covering 1999–2023

- Excludes Vermont which has never required a concealed carry permit

Modeling choices (show robustness to these for handgun deaths)

- DiD framework
 - Restrict comparisons to within Census regions
 - Allow state-specific cubic time trends
- Permitless carry
 - Indicator turns on in adoption year if by July 1, next year otherwise
 - Anticipation: include indicator for earlier passage year (8 states)
 - Include may issue indicator: estimates are relative to shall issue
- Other time-varying controls:
 - Gun laws: SYG, background checks (private sales + permit exception), CAP, purchase delay
 - Log population + Demographic fractions by sex, race/ethnicity, age
 - Economic conditions (unemployment, income, EPR, poverty rate)
 - Logs of prison population, police officers employed, non-injury deaths
- Estimation
 - Specify outcomes as rates per 100,000 residents
 - Wild cluster bootstrap (100,000 replications) – show these p-values along with usual t-stats
 - Population-weighted

Permitless carry adoption and passage dates, 1999–2023

State	Passage	Adoption	State	Passage	Adoption
Alaska [*]	6/11/03	9/9/03	South Dakota	1/31/19	7/1/19
Arizona [*]	4/16/10	7/29/10	Oklahoma [*]	2/27/19	11/1/19
Wyoming	3/2/11	7/1/11	Montana	2/18/21	2/18/21
Kansas	4/2/15	7/1/15	Utah	2/12/21	5/5/21
Maine	7/8/15	10/12/15	Iowa	4/2/21	7/1/21
Mississippi [*]	7/1/15	4/15/16	Tennessee	4/8/21	7/1/21
West Virginia	3/5/16	5/26/16	Texas [*]	6/16/21	9/1/21
Idaho	3/28/16	7/1/16	Georgia	4/12/22	4/12/22
Missouri	9/14/16	1/1/17	Ohio	3/14/22	6/13/22
New Hampshire	2/22/17	2/22/17	Indiana	3/21/22	7/1/22
North Dakota [*]	3/23/17	8/1/17	Alabama [*]	3/10/22	1/1/23
Arkansas	10/17/18	10/17/18	Florida	4/3/23	7/1/23
Kentucky	2/14/19	6/27/19	Nebraska ^{*†}	4/25/23	9/2/23

^{*} Passage in the year prior to adoption, based on our July 1 threshold.

[†] Adopted after our sample period ended.

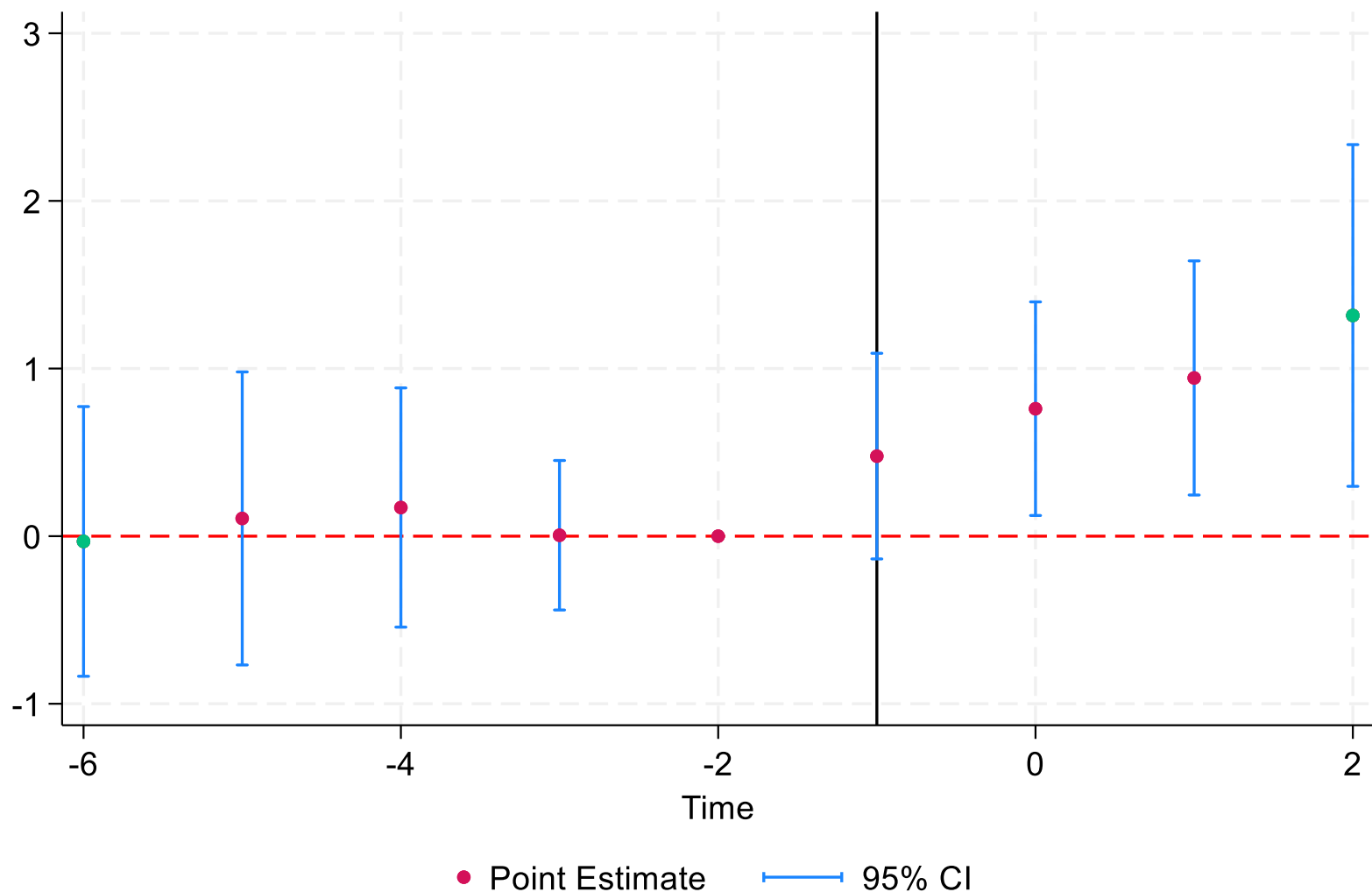
Main results: Effect of permitless carry on handgun deaths

Specification	Coeff. (1)	t (2)	p (3)
Baseline	.528***	2.63	.005
Just may issue, fixed effects, state trends	.493**	2.05	.025
No pre-adoption year passage indicator	.508***	2.69	.005
Quadratic state trends	.358*	1.61	.086
Quartic state trends	.328	1.47	.119
Year fixed effects not interacted	.365*	1.61	.100
Year-by-east/west fixed effects	.379*	1.72	.075
Year-by-region/South Atlantic FE	.533***	2.48	.008
Year-by-census division FE	.419*	1.78	.057
Not population-weighted	.587**	2.17	.014
Log handgun deaths	.026**	1.87	.035
Mean handgun deaths pre-adoption year		15.4	

N = 1,250 (49 states + DC over 25 years).

Handgun deaths are from the CDC and represent all gun deaths other than long gun deaths (Koenig & Schindler 2023).

Handgun deaths event study (baseline model)

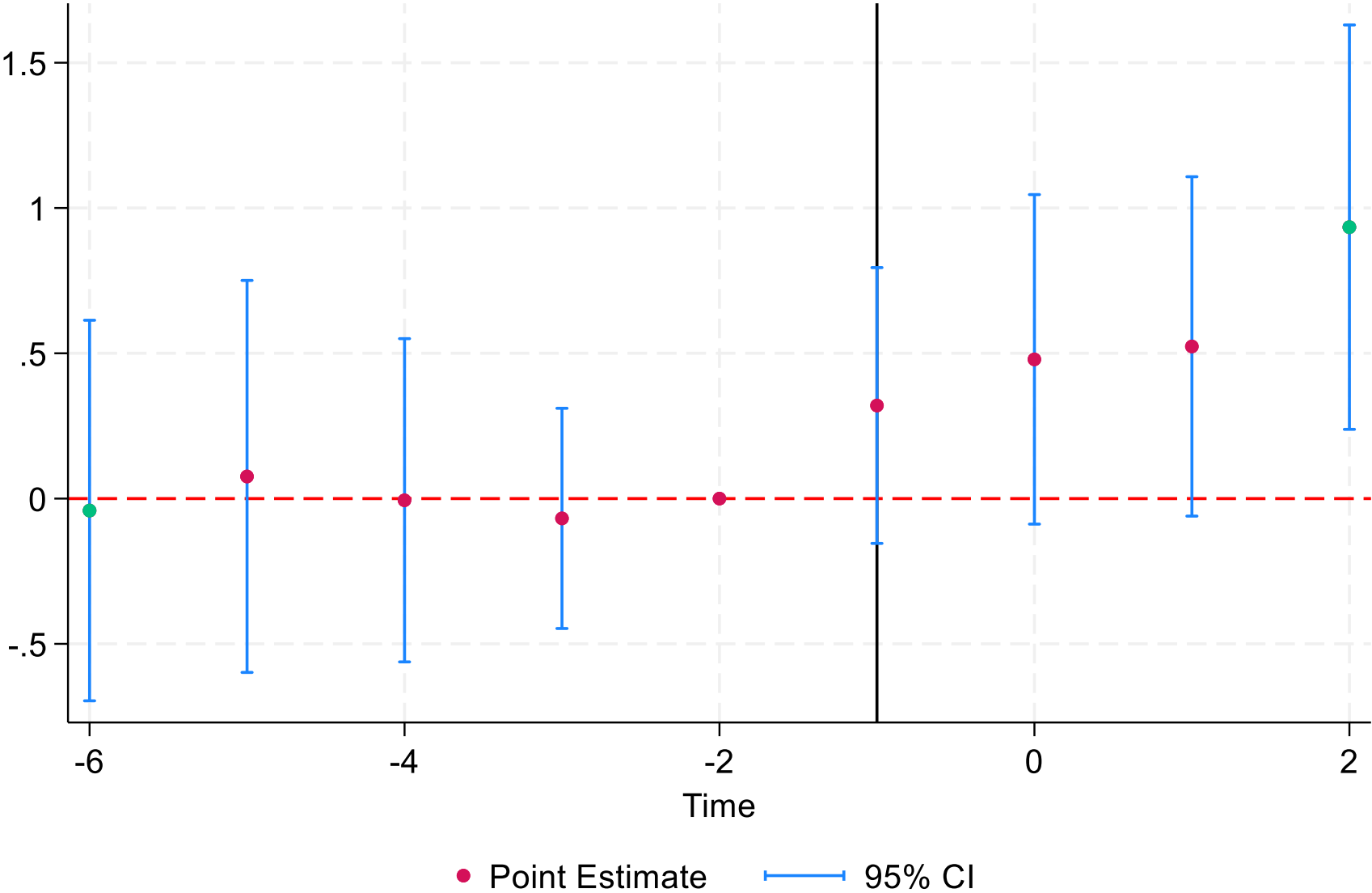


Note that this anticipatory effect is net of any relationship through the included “pre-adoption year passage” indicator: in the regressions, year -1 is pre-adoption for the other 18 states.

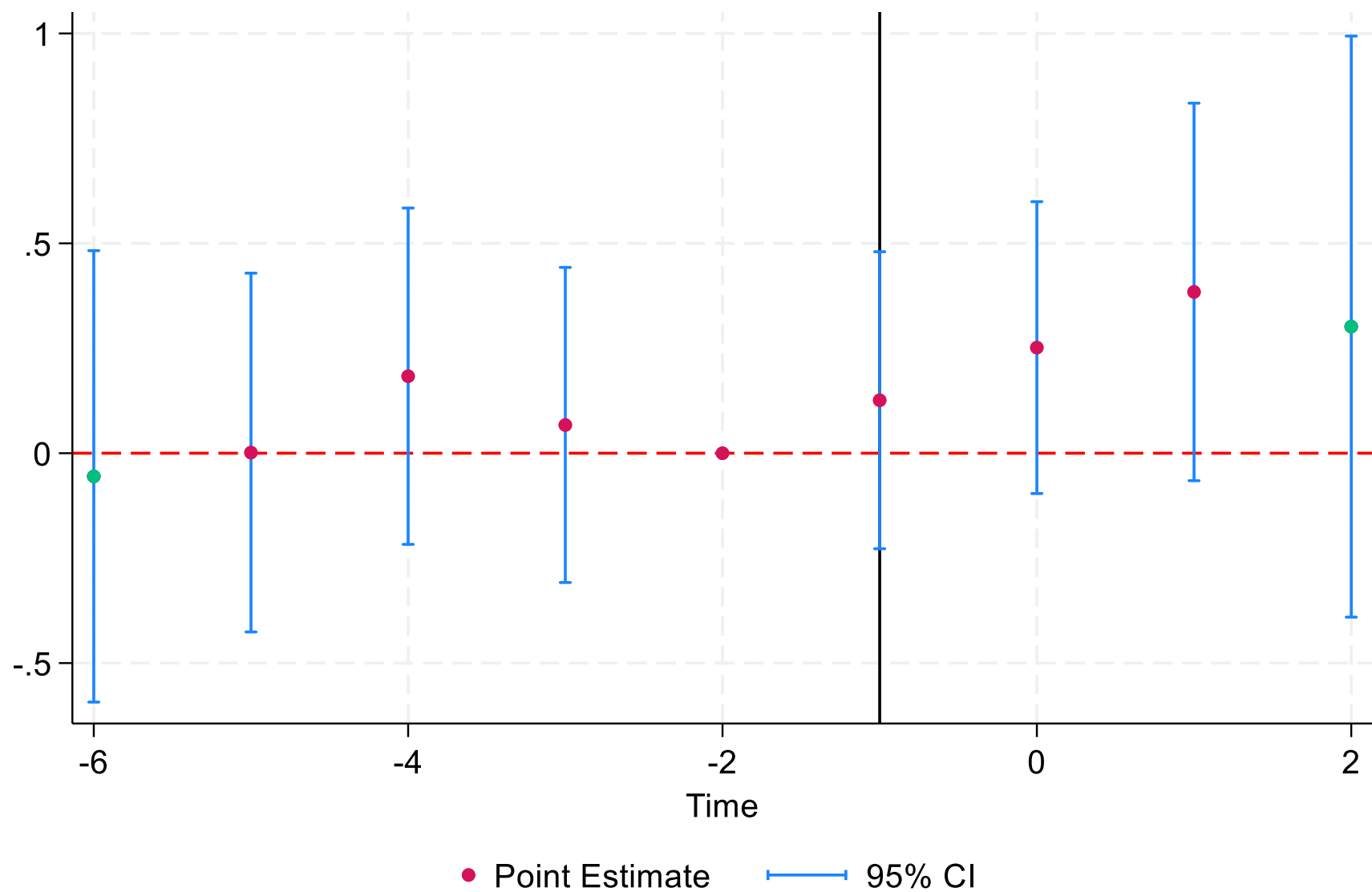
Effects of permitless carry on CDC injury deaths (CDC)

Gun type	All injury (1)	Homicide (2)	Suicide (3)	Unintentional (4)
Handgun	.528*** t=2.63 p=.005 μ=15.4	.334* t=1.90 p=.059 μ=6.14	.150 t=1.30 p=.152 μ=8.91	.053*** t=2.13 p=.010 μ=.195
Long gun	-.020 t=0.37 p=.695 μ=1.12	-.004 t=0.19 p=.884 μ=.201	-.027 t=0.67 p=.464 μ=.888	.003 t=0.36 p=.712 μ=.017
Nongun	.618 t=0.61 p=.534 μ=73.1	-.072 t=1.37 p=.105 μ=1.51	.069 t=0.60 p=.539 μ=6.59	.265 t=0.27 p=.777 μ=63.7

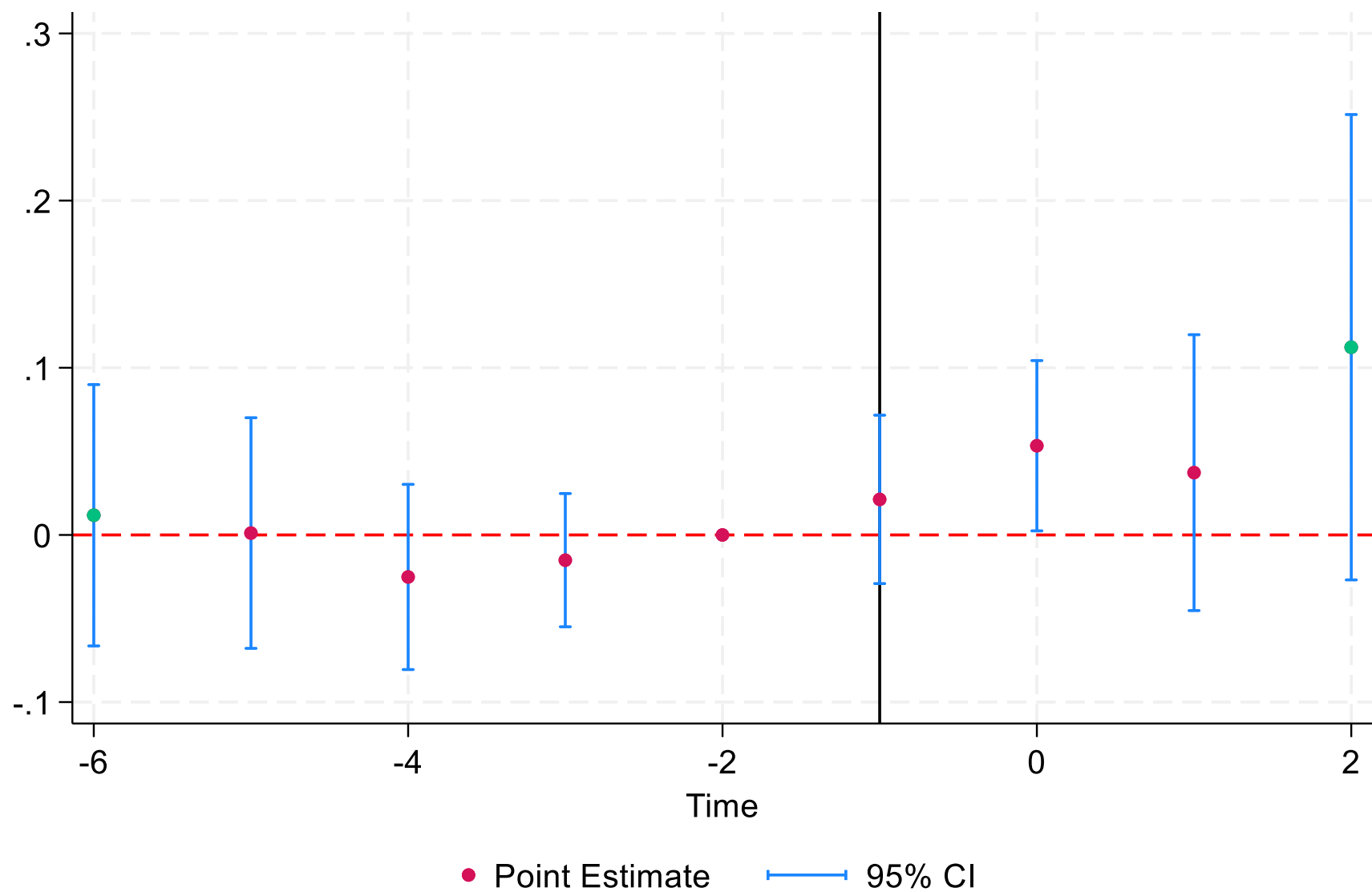
CDC handgun homicides event study



Handgun suicides event study



Unintentional handgun deaths event study



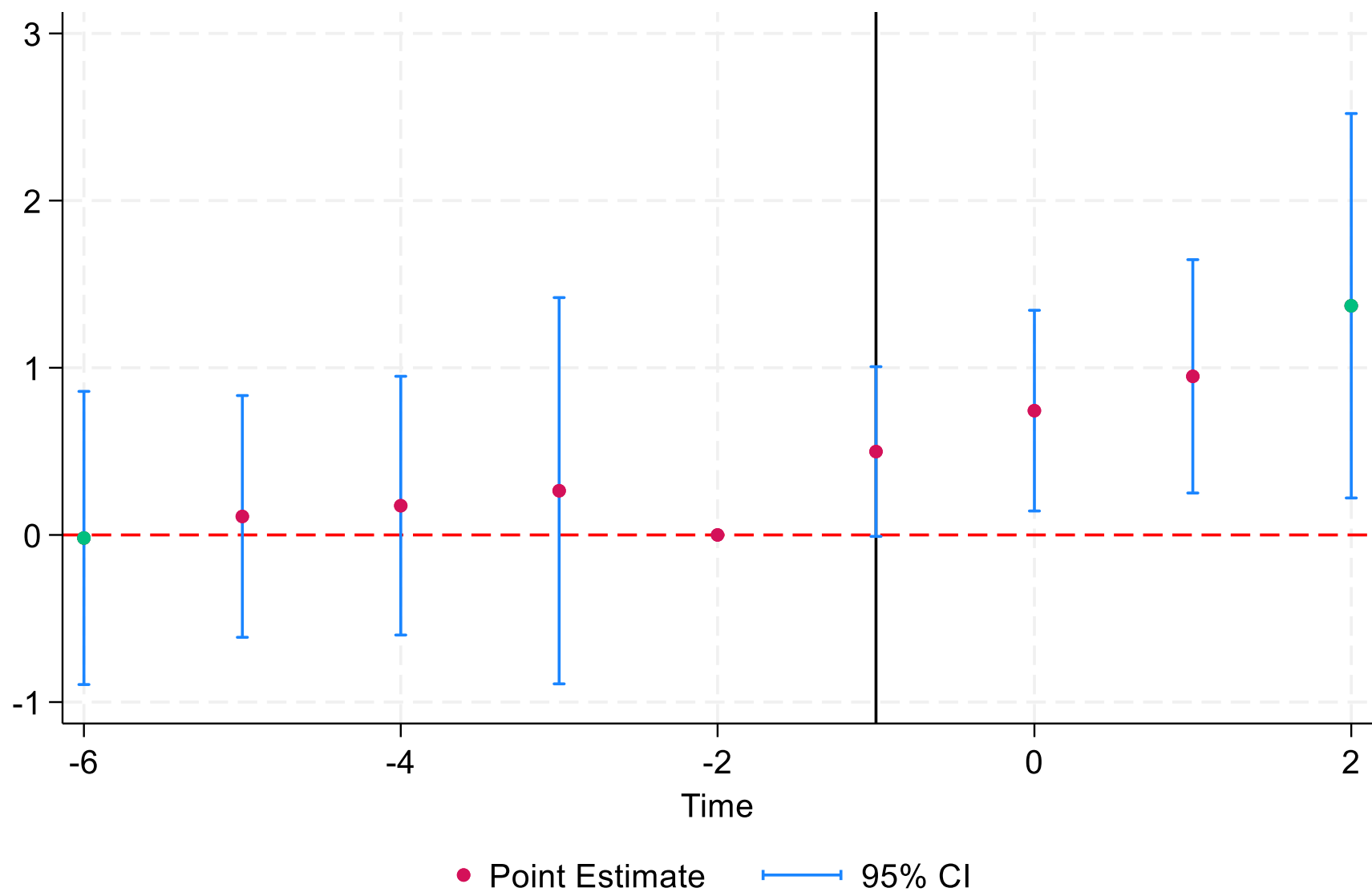
Effects of permitless carry on SHR homicides and UCR violent crimes

Crime category	Coeff. (1)	t (2)	p (3)	mean (4)
SHR homicide – handgun	.467**	2.00	.030	4.57
SHR homicide – long gun	-.021	0.42	.647	.374
SHR homicide – nongun	.014	0.13	.891	1.67
Robbery – total	-.117	0.03	.974	62.1
Robbery – gun	.288	0.12	.925	29.3
Robbery – nongun	-1.54	0.61	.555	32.8
Aggravated assault – total	23.2**	2.76	.004	278.4
Aggravated assault – gun	12.3***	3.16	.001	113.6
Aggravated assault – nongun	8.47*	1.43	.093	164.8
Simple assault	16.7	0.51	.646	1,020

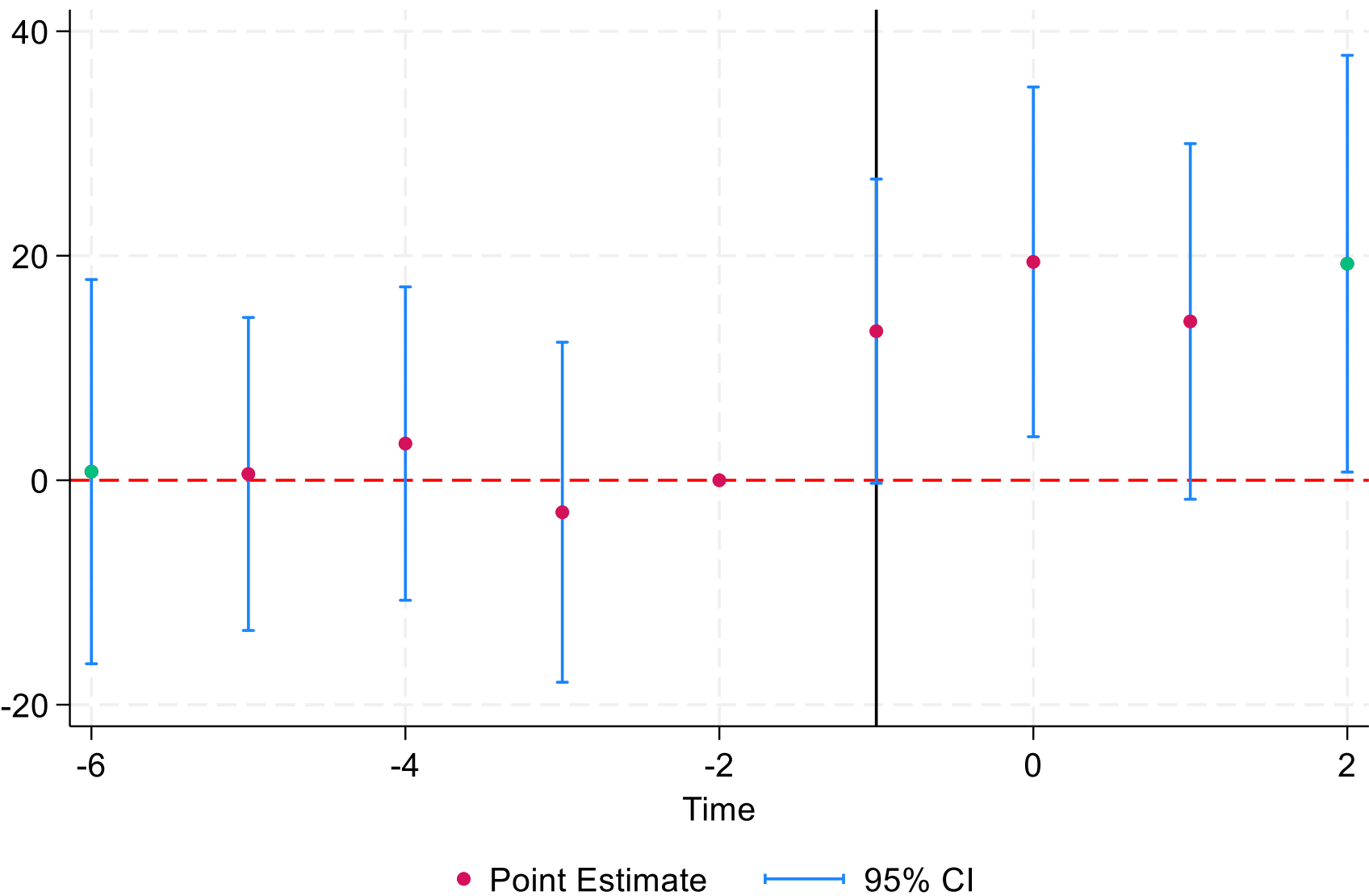
Retes are constructed using the population covered by agencies reporting UCR Return A data.

N = 1,203 for SHR homicide and N = 1,222 for robbery and assault. Both samples exclude 4 observations for which agencies reporting Return A data covered below 20% of the state population. The SHR sample excludes another 43 observations for which the SHR homicide count was below 20% of the Return A homicide count. The UCR sample excludes another 24 observations for which gun involvement is reported for fewer than 7% of assaults and robberies (the same observations for both; the next lowest shares are 34% & 25% percent, respectively).

UCR handgun homicides event study



Aggravated assault by gun event study



Permitless carry effects on UCR property & overall violent/index crime

Crime category	Coeff. (1)	t (2)	p (3)	mean (4)
Burglary – total	29.8**	2.56	.010	360.5
Burglary – forced entry	24.9***	3.20	.000	198.8
Burglary – non-forced entry	3.62	0.72	.458	141.9
Burglary – attempted	.259	0.11	.965	19.8
Theft (larceny)	103.2***	2.82	.005	1,511
Motor vehicle theft	15.2*	1.51	.094	232.4
All violent	25.2**	2.06	.034	392.5
All property	148.2***	3.06	.001	2,104
All index (property + violent)	169.3***	3.00	.002	2,496

N = 1,222: sample excludes the same 28 observations as did the UCR robbery & assault sample in the previous table, including 24 that categorize fewer than 6% of burglaries; the next lowest share is 59%.

Violent crime also includes UCR homicides and rapes (and excludes simple assaults).

A possible mechanism: does permitless carry increase the perceived benefit from owning a handgun & thereby raise handgun demand?

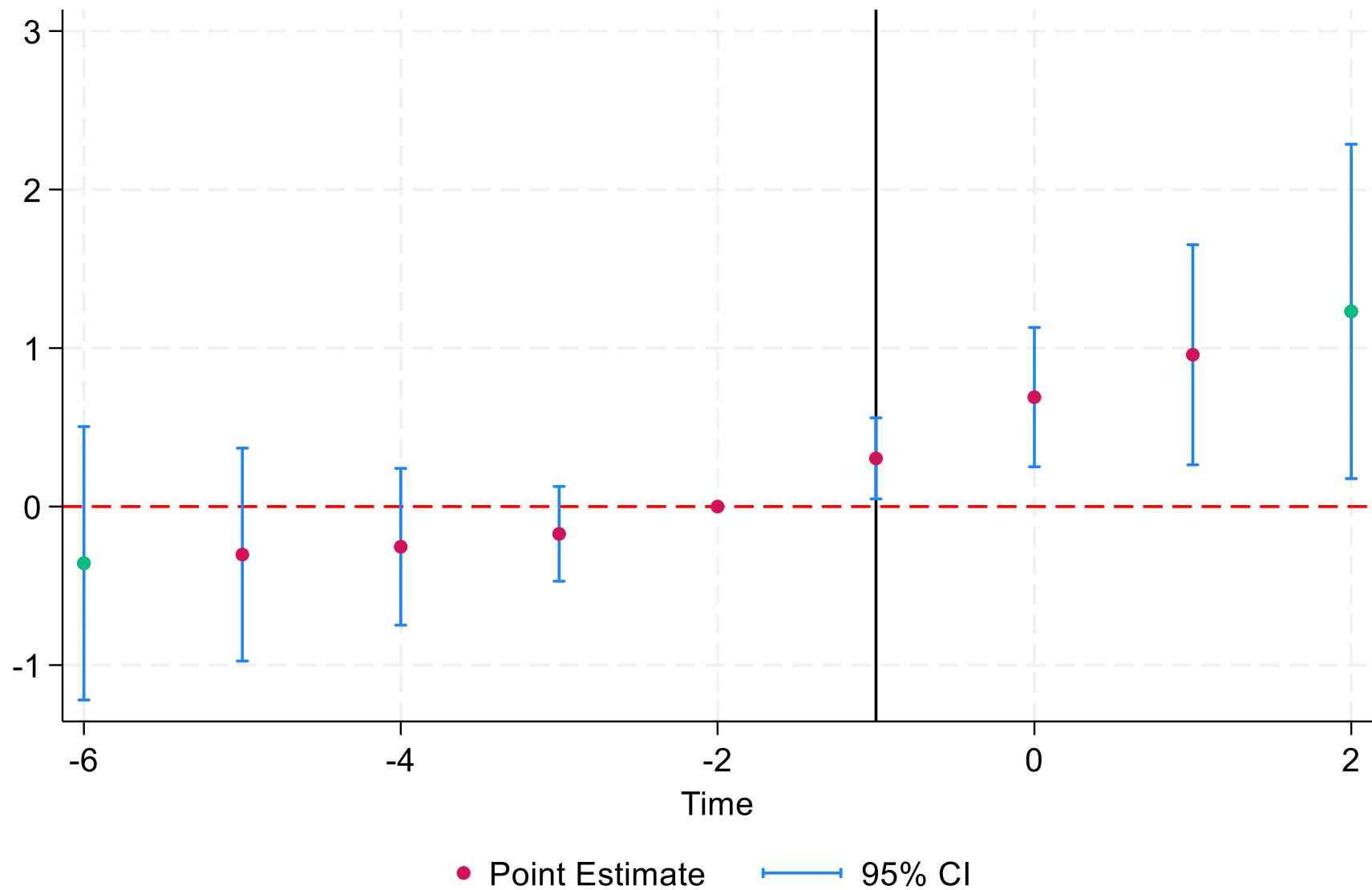
Permitless carry effects on FFLs and background checks

Outcome	Coeff.	t	p	mean	N
	(1)	(2)	(3)	(4)	(5)
Firearm dealers (type 1)	.482***	3.16	.000	21.2	1,050
Firearm pawnbrokers (type 2)	-.115	1.07	.262	3.98	1,050
Firearm/ammo manufacturers (type 6, 7)	-.011	0.08	.925	6.16	1,050
Firearm importers (type 8)	.010	0.68	.470	.497	1,050
Destructive device FFLs (type 9, 10, 11)	.011	0.75	.464	.281	1,050
Handgun background checks	189.1*	1.81	.054	3,447	1,216
Log handgun background checks	.175***	2.50	.003	3,447	1,216
Long gun background checks	-8.95	0.15	.865	2,166	1,216
Log long gun background checks	.026	1.08	.253	2,166	1,216
Permit background checks	-371.8*	1.67	.081	1,800	1,191

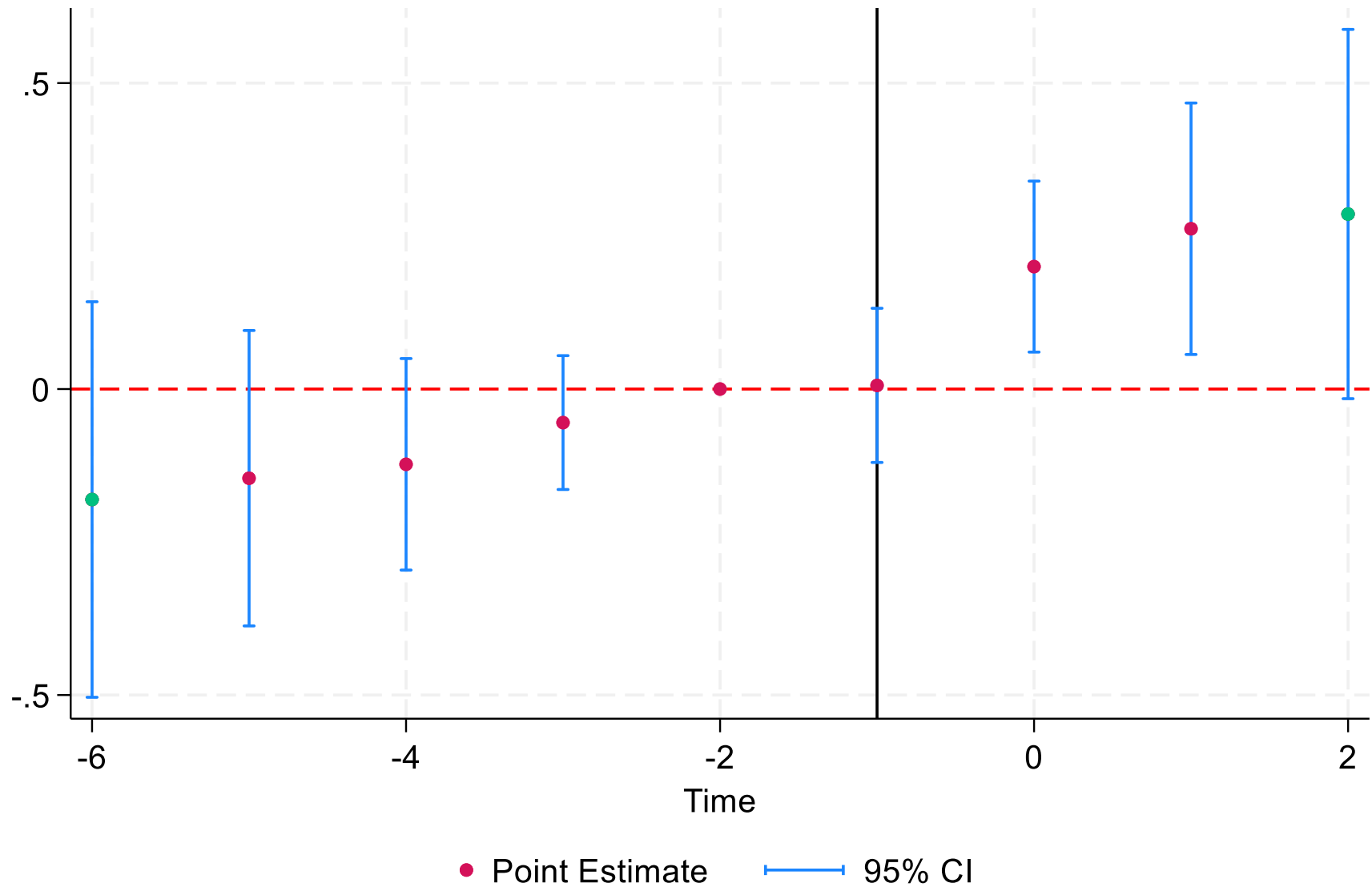
FFL data are from Johnson & Robinson (2024) and span 2003–2023.

Background check data are from NICS and, as a result of anomalies, exclude 34 observations for handguns and long guns and 59 observations for permits.

Licensed firearm dealers event study



Log handgun transfer background checks event study



Effects of permitless carry using a stacked DiD model

Outcome	Coeff.	t	N	Coeff	t	N
	(1)	(2)	(3)	(4)	(5)	(6)
Handgun deaths	.730**	2.25	7,500	.468*	1.84	12,813
Handgun homicides (CDC)	.462*	1.71	7,500	.288	1.46	12,813
Handgun suicides	.192*	1.67	7,500	.158	1.19	12,813
Unintentional handgun	.074***	2.88	7,500	.045*	1.87	12,813
Handgun homicides (SHR)	.563*	1.67	7,333	.506**	2.12	12,287
Gun assaults	13.6**	2.35	7,232	8.20**	2.28	12,496
Forced entry burglaries	22.5**	1.96	7,232	14.4	1.60	12,496
Theft	88.2*	1.66	7,232	84.4**	1.99	12,496
All violent	32.7*	1.88	7,232	19.9*	1.68	12,496
All property	141.0**	2.00	7,232	120.2**	2.15	12,496
All index	162.9*	1.95	7,232	135.8**	2.16	12,496
Firearm dealers	.386**	2.23	6,300	.567***	3.61	10,613
Log handgun checks	.309***	2.73	7,126	.186**	2.39	12,439
Permit checks	-482.9*	1.73	7,481	-330.2*	1.74	12,223
Not-yet-adopters included?	No			Yes		

All regressions include never-adopting states, are population-weighted, and cluster SEs by state.

Conclusion: for the 25 adopting states between 2003 and 2023, relative to shall issue, permitless carry has significantly increased

- Overall handgun deaths by 3.4% (between 2.3–4.1%)
- Handgun homicides (CDC by 5.4%, UCR by 10.2%)
- Unintentional handgun deaths by 27%
- Aggravated assaults with a gun by 10.8%
- Forced entry burglaries by 12.5% and thefts by 6.8%
- Total crime: violent by 6.4%, property by 7.0%, index by 6.8%
- Firearm dealer presence by 2.3%
- Handgun transfer checks by 5.5% (or 17.5%) but reduced permit checks by 21%

These estimates are:

- Robust to changes in modeling choices (for overall handgun deaths)
- Robust to excluding previously adopting states from the comparison group
- Net of anticipatory effects apparent even beyond controlling for pre-adoption year law passage
- Not observed for long gun/nongun deaths/homicides, nongun/simple assaults, attempted/non-forced entry burglaries, non-dealer FFLs, or long gun checks

In sum: permitless carry does not seem to be the greatest idea...